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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application No.	:	10/582,792	Confirmation No. 6760
Applicant(s)	:	Nestor RODRIGUEZ-AMAYA et al.	
Filed	:	June 14, 2006	
T.C./A.U.	:	4177	
Docket No.	:	R.306166	
Customer No.	:	02119	

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Date: April 4, 2008

INFORMATION DISCLOSURE STATEMENT UNDER 37 CFR 1.97(b), AND EXPLANATION OF THE RELEVANCE OF THE CITED PRIOR ART

Sir:

The undersigned hereby requests that the prior art cited on the attached prior art statement be placed of record in the application file and be considered by the examiner.

This citation of prior art is made under 37 CFR 1.97(b), since it is being filed before the mailing of the first Office Action.

The relevance of the prior art cited on the attached form PTO/SB/08a is as follows:

JP 48-100522
No abstract available for this patent. It is cited to show state of the art.
JP 61-136176
No abstract available for this patent. It is cited to show state of the art.
JP 2001-221135
The purpose of this invention is to solve the problem of conventional fuel injection

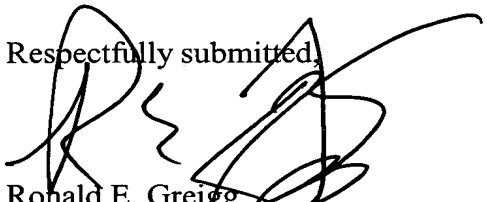
nozzles that characteristics of the fuel injection nozzle is worsened with a decrease in injection-valve opening pressure resulting from wear of a body side seat surface and the like because a diameter of a seat of a valve side seat surface abutting to the body side seat surface tends to decrease with the wear of the body side seat surface and the like. An angle &alpha 1 of a first tilting surface 13 of the valve side seat surface 3a is formed to be smaller than an angle &alpha 0 of the body side seat surface 2a while an angle &alpha 2 of a second tilting surface 14 is formed to be larger than the angle &alpha 0 of the body side seat surface 2a so as to make a differential angle &theta 1 made by the first tilting surface 13 and the body side seat surface 2a two times or less than a differential angle &theta 2 made by the second tilting surface 14 and the body side seat surface 2a.

JP 2003-201938

The purpose of this invention is to keep an effective diameter of a valve needle hydraulically acting on a valve seat, throughout the whole useful life of a fuel injection valve, without lowering the bending stiffness of the valve needle. In this fuel injection valve for an internal combustion engine, a valve sealing surface 7 formed at an end portion close to a fuel chamber of the valve needle 5 so as to seal a injection orifice 11 in regard to a pressure chamber 19 at a closing valve position is composed of a first conical surface 30 and a second conical surface 32. A first ring groove 36 extending in the same radial direction plane of a hole 3, and a second ring groove 38 disposed in a downstream side of the first ring groove 36 so as to be parallel with the first ring groove 36 are formed in the valve seat 9.

Examination of this application is respectfully requested.

Respectfully submitted,



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Enclosures
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